Urban Roads – Challenges & Ideas

- Challenges faced on busy urban roads
  - Urban Two Lane Two Way roads
  - Static Operations
  - Site Installation Mobile Operations
- Cyclist Management
- Detours for Road Closures
- Temporary Bus Stop
- Inspections
- Acknowledgements
Challenges faced on busy urban roads

- So what are Busy Urban Roads?
  - Busy
    - Roads carrying greater than 10,000 vpd (Level 2)
  - Urban
    - Roads with permanent speed limits of less than 65 Km/h
Challenges faced on busy urban roads

- Roads (Specifically Level 2)
- Two different environments:
  - Multi Lane roads with less interruptions to traffic flow
  - Two lane two way roads with multiple & expected interruptions
Challenges faced on busy urban roads
Static Operations

What have we done:

- Level 2L (Level 2 road with Level 1 “State Highway” dimensions for signs and delineation)

- All other requirements for Level 2 must apply
  - Level 2 signs & equipment
  - Level 2/3P STMS requirements as per CoPTTM
## Static Operations

<table>
<thead>
<tr>
<th>Permanent Speed Limit</th>
<th>2 L / Proposed</th>
<th>Level 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≤ 50 km/h</td>
<td>60 km/h</td>
</tr>
<tr>
<td>A</td>
<td>Sign Visibility Distance</td>
<td>50</td>
</tr>
<tr>
<td>B</td>
<td>Warning Distance</td>
<td>50</td>
</tr>
<tr>
<td>C</td>
<td>Sign Spacing</td>
<td>25</td>
</tr>
<tr>
<td>D</td>
<td>Longitudinal Safety Zone</td>
<td>10</td>
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<tr>
<td>E</td>
<td>Lateral Safety Zone</td>
<td>1</td>
</tr>
<tr>
<td>G</td>
<td>Taper Length</td>
<td>30</td>
</tr>
<tr>
<td>K</td>
<td>Distance between tapers</td>
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</tr>
<tr>
<td>Cone spacing in taper</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Cone spacing : Working Space</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
Single lane situations

- Extended area of conflict for passing vehicles
Mobile set up of Static TTM Level 2
Less 65 km/h
Two lane / Two way road

Requirements:
1. Truck must have TMA & Arrowboard mounted
2. Access from kerb side of truck only
3. May work in front of truck max 20 m
   (maintain 10m roll ahead and 1 m lateral safety zones)
Cyclist Management

Cycle lane closed:
- Narrow roads / no dedicated lane
- Cyclists want more space / narrow lane

encourages TSL
Cyclist Management

- Use lateral safety zone:
  - 1.5 m lane width (Lateral + 0.5 m)
  - Must have safety fence around work space
  - Separate footpath / cycle lane with fence
Detours for Road Closures

- Detours for some Road Closures are not catering to needs of public
  - Many users unaffected
  - Those users affected likely know how to get to their destination

- Consider:
  - Whether those affected actually need help
  - Needs for those affected relative to those who are not
Temporary Bus Stop

- Activities sometimes require the movement of bus stops
- How do we inform patrons and bus drivers?
- New Sign suggested
- Additional standard layout options
Temporary Bus Stop

- Patrons will understand and congregate where bus will temporarily stop.
- Bus drivers directed to appropriate and safe temporary stopping area.
- Need to ensure buses have safe space to manoeuvre.
Level LV / 1 Site
Level 1 TC / STMS
One person
Any length of time

Activity differs from placing cones & signs
Propose a specific Inspections training / qualification recognised for this activity
Acknowledgements

Site Installation Mobile Closures
- John Glen (TC Auckland)

Temporary Bus Stop:
- Kate Maris, Terry Sugrue (AT)
- Troy Campbell (NZ Traffic)
- Stuart Fraser (NZTA)

Inspections
- Stuart Fraser (NZTA)
- Doris Stroh (AMA / Beca)
- Richard Quin (FH)
Questions?
Thank you.